Need for a stratified analysis in stage I malignant ovarian germ cell tumors (MOGCT): Prospective survival analysis of cases collection from the French rare malignant ovarian tumors (TMRO) network & GINECO group


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Background: In France, a national network (TMRO) has been set up since 2010 to prospectively monitor the management of rare ovarian tumors. In FIGO stage I MOGCT patients (pts), the role of adjuvant chemotherapy (adj CT) remains debated. Here, we aimed to define the impact of adj CT in stage I pts.

Methods: All MOGCT patients prospectively recorded in 13 of the most important centers of the TMRO network were analysed.

Results: Overall, 147 pts were registered and most of the pts (n = 101, 69%) were stage I at diagnosis. Median follow-up period was 51 months. Complete peritoneal staging (peritoneal washings, biopsies or omentectomy) was performed in 77/101 pts and surgery with fertility preservation in 94/101 pts. Thirty nine (39%) pts had immature teratoma, 26 (26%) had yolk sac tumors (YST), either pure (n = 16) or mixed (n = 10), 24 (24%) had pure dysgerminoma and 3 had others mixed tumors. Fifty-nine pts had stage IA while 34 presented with stage IB-C. Adj CT was administered to 28/60 and 31/33 stage IA-B and IC pts. In the 34 pts treated with surgery only, 12 (35.3%) relapsed: 6/16 (37.5%) pts with pure dysgerminoma, 3/15 (20%) with immature teratoma, and 3/3 with YST. All relapsed pts were initially staged IA. No relapse was observed following salvage chemotherapy. The 5-year event free survival (EFS) rates were respectively 94.4% in pts treated with adjuvant chemotherapy and 54.6% in pts who underwent surgery followed by surveillance only (p < 0.00001). All but 1 relapsed pts underwent chemotherapy. The 5-year overall survival rates were similar with respectively 96.3% versus 97.8% (NS). Twenty-two stage FIGO I pts could be spared from any chemotherapy.

Conclusions: Most MOGCT stage I pts will be cured. Active surveillance is associated with an excellent survival outcome in MOGCT. This should be the preferred option for immature teratoma. In pure dysgerminoma, relapse rate was higher than previous reports, emphasizing the need to discuss with the patient the benefit of not having adj CT (i.e. the avoided risk weighed against the risk of relapse and delayed treatment). Adj CT remains recommended for all pts with YST.

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